

# Conference Program

## Monday morning, Nov 3, 2025

8:00	Welcome & Registration
9:00	Opening INSECT 2025
<b>ECM: Fundamentals + Materials I</b> Chair: Prof. Krishna Kumar Saxena	
9:10	<b>Influence of Solid-State Properties on Electrochemical Machining of SSiC</b> Speaker: Michael Schneider (TU Dresden)
09:30	<b>Experimental Investigation of the Electrochemical Dissolution Behaviour of Nitinol Shape Memory Alloys by PECM</b> Speaker: Alexander Frank (ZeMAgGmbH)
9:50	<b>Advances in the interpretation of the material removal by studying the surface of nitriding steel for pulsed electrochemical machining</b> Speaker: Falko Böttcher (Fraunhofer IWU)
10:10	<b>Investigation of the ideal pH range for PECM machining and microstructuring of nickel 201</b> Speaker: Matthias Zeiner (Saarland University)
10:30	<b>Tea and Coffee Break</b>
<b>ECM: Surface Integrity I</b> Chair: Prof. Matthias Hackert-Oschätzchen	
11:00	<b>Fingerprint Analysis of post-processing of AM 316L using Jet-ECM</b> Speaker: Matin Yahyavi Zanjani (Chemnitz University of Technology)
11:20	<b>Microstructure and transpassive dissolution behaviour control of laser additive manufacturing Inconel 718</b> Speaker: Pengfei Guo (Trinity College Dublin)
11:40	<b>The effect of gas pores on surface formation in electrochemical jet machining of additively manufactured Inconel 718</b> Speaker: Thomas Girerd (University of Nottingham)
12:00	<b>Lunch</b>

## Monday afternoon, Nov 3, 2025

**ECM: Fundamentals + Materials II**

Chair: Dr. Tim Herrig

13:00

**ECM - The role of side reactions**

Speaker: Michael Schneider (Fraunhofer IKTS)

13:20

**Interplay between electrochemistry and material behavior in ECM mass production: a Si effect in stainless steel**

Speaker: Willem Hoogsteen (Philips Consumer Lifestyle Innovation)

13:40

**Analysis of repeatability for experimental characterization of lateral gap during Pulsed Electrochemical Machining**

Speaker: Richard Petermann (Otto von Guericke University Magdeburg)

14:00

**Tea and Coffee Break****ECM: Process Modelling, Monitoring + Control**

Chair: Prof. Dirk Bähre

14:30

**Simulation-based investigation of the influence of pulse parameters in pulsed electrochemical machining**

Speaker: Ingo Schaarschmidt (Chemnitz University of Technology)

14:50

**A data-driven approach for predicting time to short-circuit in precise electrochemical machining**

Speaker: Elio Tchoupe Sambou (RWTH Aachen University)

15:10

**Modeling Concept for a Wire ECM Process with High Speed Wire Flushing**

Speaker: Marcus Owoh (Pforzheim University)

15:30

**Development of High-Pressure Internal Flushing for Wire Electrochemical Machining**

Speaker: Jakub Reliszka (RWTH Aachen University)

15:50

Announcement Evening Event

17:00

**Evening Event**

## Tuesday morning, Nov 4, 2025

9:00

Opening

**ECM: Surface Integrity II**

Chair: Dr. Michael Schneider

9:10

**Experimental investigations into electrochemical deposition of high entropy alloy towards moulding/tooling applications**

Speaker: Krishna Kumar Saxena (KU Leuven)

9:30

**Investigation of the PECM dissolution characteristics of nickel as pretreatment process for residual stress reduction**

Speaker: Thomas Berger (Chemnitz University of Technology)

09:50

**Pulse electrochemically machined surfaces**

Speaker: Nils Junker (PEMTec SNC)

10:10

**Researching possible surface microstructural changes induced by hybrid laser-ECM**

Speaker: Muhammad Hazak Arshad (KU Leuven)

10:30

Tea and Coffee Break

**Plasma Electrolytic Polishing I**

Chair: Prof. Joško Valentinčič

11:00

**Influence of electrolyte flow on plasma electrolytic polishing of additively manufactured lattice structures**

Speaker: Jithinraj Edaklavan Koroth (University of Ljubljana)

11:20

**Surface Enhancement of Macro-PBF-LB/M Components via Plasma Electrolytic Polishing**

Speaker: Henning Zeidler (Technische Universität Bergakademie Freiberg)

11:40

**Impact of voltage and temperature on plasma electrolytic polishing of niobium with fluoride-free electrolyte**

Speaker: Susanne Quitzke (Chemnitz University of Technology)

12:00

Lunch

**Tuesday afternoon, Nov 4, 2025****Plasma Electrolytic Polishing II**

Chair: Prof. Henning Zeidler

13:00

**Plasma-electrolytic polishing of copper with low surface oxidation**

Speaker: André Martin (Chemnitz University of Technology)

13:20

**Influence of Plasma-electrolytic Polishing (PeP) on Spark-eroded Surfaces**

Speaker: Hans-Peter Schulze (Leukhardt Schaltanlagen Systemtechnik GmbH)

13:40

**Plasma-Electrolytic Polishing for Medical application**

Speaker: Falko Böttger-Hiller (AMtopus GmbH &amp; Co. KG)

14:00

Closing Remarks INSECT 2025 &amp; Announcement INSECT 2026

14:10

**Tea and Coffee Break**

14:30

**ECM + PeP Lab Tour**